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Amendments to the Drawings:

The attached replacement sheet includes changes to Figure 2. In Figure 2, reference number "120" has been added and cross-hatched sectional views have been provided.

Attachment: Replacement Sheet (2/3)

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### **REMARKS/ARGUMENTS**

In view of the following remarks, reexamination and reconsideration of this application, withdrawal of the rejections, and formal notification of the allowability of all claims as presented are earnestly solicited. Claims 1-18 are pending. In response to the Office Action, Claims 2-9 and 11-18; Figure 2; and pages 8 and 9 of the specification have been amended. The amendments find support throughout the Specification and the Drawings, and no new matter has been added. As presented herein, it is believed that the pending claims define patentable subject matter over the references cited by the Examiner and notice to such effect is requested at the Examiner's earliest convenience.

### **Drawing Objections**

Examiner has objected to the drawings for failing to show the "at least one via" recited in Claims 9 and 18. Examiner has further indicated that the drawings should also include "cross hatched sectional views...since a multi-layer is specified in the claims." In response, Figure 2 has been amended as shown in the attached replacement drawing to further depict a via (120) as recited in Claims 9 and 18. Support for the via is found in the specification as filed such as, for example, at page 9, lines 1-8. Accordingly, no new matter has been added. Pages 8 and 9 of the specification have also been amended to include the reference number "120" corresponding to the via depicted in the replacement Figure 2.

Furthermore, replacement Figure 2 also shows a cross-hatched sectional view of the materials present in the recited multi-layer PWB. The identity of the various layers is disclosed in the as-filed Figure 2 and throughout the specification as filed. Accordingly, no new matter has been added.

Applicants thus respectfully request that the Examiner withdraw the pending drawing objections in light of the replacement Figure 2 presented herein.

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### Claim Objections

Examiner has also objected to Claims 2-9 and 11-18. In response, Claims 2-9 have been amended to recite "**The multi-layer...**". Furthermore, Claims 11-18 have been amended to recite "**The mobile...**", as suggested by the Examiner. Applicants thus respectfully request that the Examiner withdraw the pending objections of Claims 2-9 and 11-18.

### Claim Rejections - 35 U.S.C. §103

Examiner has rejected Claims 1-18 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,417,460 to Cheng ("Cheng") in view of U.S. Patent No. 5,718,039 to Saida *et al.* ("Saida") and in further view of common knowledge.

Specifically, Examiner has stated that Cheng discloses a printed wire board structure comprising "(1b) a first insulative-coated conductive layer B1 (insulating substrate) upon which the first conductive layer S1 is disposed." In contrast, however, Cheng discloses that the "insulating substrate" layer (B1) is "made from a polyester prepreg." *See* Cheng column 4, line 2. Thus, **Cheng does not disclose, teach, or suggest a "first insulative-coated conductive layer** (such as resin-coated copper, for example) upon which the first conductive layer is disposed" as specifically recited in independent Claims 1 and 10 of the present application.

Furthermore, even if one were to interpret Cheng as disclosing an insulative-coated conductive layer by combining the insulating substrates (B1 and B2) with the ground wiring layer (GND1), the resulting composite layer disclosed in Cheng would have a total thickness of at least 6.2 mil (157.48  $\mu\text{m}$ ). *See* Cheng, column 4, lines 6-10 and lines 46-48. This resultant thickness is well above the range of 50-70  $\mu\text{m}$  specifically recited as the thickness range for the "first insulative-coated conductive layer" in Claims 1 and 10 of the present application. Thus, **Cheng not only fails to disclose the insulative-coated conductive layer** recited in Claims 1 and 10, **but also teaches away from the specific thickness range** for such a layer as recited in the claims of the present application.

The Examiner also expressly states that Cheng "failed to disclose the range of thickness and the nominal thickness for each layer as specified by the applicants" but that Saida discloses that the conductive layer is a "copper foil having a thickness of preferably 9-100  $\mu\text{m}$  and more

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preferably 12-35  $\mu\text{m}$  and the insulating layer is at least 50  $\mu\text{m}$ ." The Examiner has further stated that it would have been obvious to one skilled in the art at the time the invention was made to employ the teachings of Saida on the circuit board of Cheng. However, Saida also fails to disclose, teach, or suggest "first insulative-coated conductive layer (such as resin-coated copper, for example) upon which the first conductive layer is disposed" as specifically recited in independent Claims 1 and 10 of the present application. In order to interpret Saida as disclosing an insulative-coated conductive layer, one must combine a single conductive layer with two adjacent insulating layers. Thus, even if one were to interpret Saida as disclosing an insulative-coated conductive layer using the dimensional ranges disclosed therein, the resulting thickness of such a layer would be at least 109  $\mu\text{m}$ , which is again well above the range of 50-70  $\mu\text{m}$  specifically recited as the thickness range for the "first insulative-coated conductive layer" in Claims 1 and 10 of the present application.

In summary, an insulative-coated conductive layer is not disclosed in either Cheng or Saida. Furthermore, even if one were to properly combine the teachings of Cheng and Saida, the proposed combination would fail to teach or suggest the recitations of the claims of the present application. In addition, both Cheng and Saida teach away from the provision of an insulative-coated conductive layer having a thickness of 50-70  $\mu\text{m}$  as recited in Claims 1 and 10 of the present application. Claims 2-9 and 11-18 depend from and include all the recitations of Claims 1 and 10, respectively. Thus, Applicants respectfully submit that Claims 2-9 and 11-18 are also patentable over the cited references for at least the reasons stated above.

### CONCLUSION

In conclusion, Cheng and Saida, alone or in combination, do not teach, suggest, or provide motivation for the embodiments of the present invention, as claimed in Claims 1 and 10 and the claims depending therefrom. Accordingly, in view of the above differences between the Applicant's invention and the cited references, the Applicant submits that the present invention, as defined by the pending claims, is patentable over the references cited in the Office Action. As such, for the reasons set forth above, the pending claims 1-18 are believed to be in condition for

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immediate allowance and notice to such effect is respectfully requested at the Examiner's earliest opportunity.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR §1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

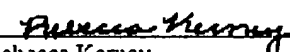
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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the US Patent and Trademark Office at Fax No. (571) 273-8300 on the date shown below.

  
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3/16/06  
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